Cryptologic Technician - Networks (CTN)

June 2022

United States Navy Ethos

We are the United States Navy, our Nation's sea power - ready guardians of peace, victorious in war.

We are professional Sailors and Civilians - a diverse and agile force exemplifying the highest standards of service to our Nation, at home and abroad, at sea and ashore.

Integrity is the foundation of our conduct; respect for others is fundamental to our character; decisive leadership is crucial to our success.

We are a team, disciplined and well-prepared, committed to mission accomplishment. We do not waver in our dedication and accountability to our Shipmates and families.

We are patriots, forged by the Navy's core values of Honor, Courage and Commitment. In times of war and peace, our actions reflect our proud heritage and tradition.

We defend our Nation and prevail in the face of adversity with strength, determination, and dignity.

We are the United States Navy.

The Sailor's Creed

I am a United States Sailor.

I will support and defend the Constitution of the United States of America and I will
obey the orders of those appointed over me.

I represent the fighting spirit of the Navy and those who have gone before me to defend
freedom and democracy around the world.

I proudly serve my country's Navy combat team with Honor, Courage, and Commitment.

I am committed to excellence and the fair treatment of all.

CAREER ROADMAP

Seaman Recruit to Master Chief Roadmap

The educational roadmap below will assist Sailors in the Cryptologic Technician - Networks community through the process of pursuing professional development and advanced education using various military and civilian resources e.g. PQS program; JST Joint Service Transcript; E-Learning; Navy College Network; etc. Successful leadership is the key to military readiness and will always require a high degree of technical skill, professional knowledge, and intellectual development.

What is a Career Roadmap for Cryptologic Technician - Networks?

Cryptologic Technician - Networks roadmaps are just what the name implies - a roadmap through the Enlisted Learning and Development Continuum from Seaman Recruit through Master Chief. The principal focus is to standardize a program Navy wide by featuring the existing skills necessary to be successful in the Navy. The ultimate goal of a roadmap is to produce a functional and competent Sailor.

What is the Enlisted Learning and Development Continuum?

Enlisted Learning and Development Continuum is the formal title given to the curriculum and process building on the foundation of Sailorization beginning in our Delayed Entry Program through Recruit Training Command and throughout your entire career. The continuum combines skill training, professional education, well-rounded assignments, and voluntary education. As you progress through your career, early-on skill training diminishes while professional military education gradually increases. Experience is the ever-present constant determining the rate at which a Sailor trades skill training for professional development.

Do Sailors have to follow the Roadmap?

Yes. The Cryptologic Technician - Networks roadmap includes the four areas encompassed by the Continuum in Professional Military Education to include; Navy Professional Military Education (NPME), Joint Professional Military Education (JPME), Leadership and Advanced Education.

Some training and education is mandatory (Recruit Training, CTN "A" School at the Center for Information Warfare Training, located in Pensacola, Florida, E-Learning, etc.). Some may be directed by your chain of command (Microsoft Excel and PowerPoint courses), and the remainder is voluntary (MNP, E-Learning, college courses, etc.). Sailors are advised to seek out mentors, including your Command Master Chief, Senior Enlisted Advisor, Leading Chief Petty Officer, Leading Petty Officer and Command Career Counselor, and to make use of your Navy College Virtual Education Center (VEC) or OCONUS Education Office's vast resources. All are uniquely qualified to help you along the way.

Notes:

CTN CAREER PATH
(IW/EXW/SW/AW)

Cryptologic Technicians Networks (CTN). Cryptologic Technicians (Networks) (CTN) employ tactical and strategic capabilities to plan, develop, and execute offensive and defensive Cyberspace Operations; perform Threat Analysis, Digital Forensics, Network Exploitation, Research and Development, and Mission Planning; leverage tactical and strategic signals intelligence and cryptologic functions; produce and execute cyberspace effects; identify and report worldwide threats in support of special operations forces, national, fleet, and joint requirements; and control and safeguard access to classified material and information systems.

YEARS OF SERVICE	CAREER MILESTONES	AVERAGE TIME TO PROMOTE	COMMISSIONING OR OTHER SPECIAL PROGRAMS	SEA/SHORE FLOW	TYPICAL CAREER PATH DEVELOPMENT
26-30	CTNCM	21.2 Yrs		Not Defined	8th CONUS/OCONUS **Billets:** Cyberspace Operations Planner, TECHAD, CSEL, Rating Advisors/Stakeholder positions (NAVIFOR, OPNAV, FCC, CIWT) **Duty:** Cyber Mission Force, NIOC, NCDOC, NCWDG, DEVGRU, IWTC, Naval Special Warfare SEL, Fleet Staff.
23-26	CTNCM CTNCS CTNC	21.2 Yrs 16.9 12.3	CSEL	Not Defined	7th CONUS/OCONUS **Billets:** Staff Duty (ie. 2nd/3rd/5th/6th/7th/10th Fleets/Echelon II/III), DCO Deployer LCPO, CSEL, DEPT LCPO, Cyberspace Operations Planner, Directorate SEL, CMF NCOIC, TECHAD, Detailer, JCAC Manager, , FIRES, NIWDC, Rate Training Leads (JCAC, CIWT, etc). **Duty:** Cyber Mission Force, NIOC, NSA/CSS, NCDOC, DCO Afloat, Embarked Staff, IWTC, NCWDG, DEVGRU, Naval Special Warfare. **Qualification:** SEA, Interactive Operator Training (H13A/14A/15A/16A), US Cyber Command Basic Offensive Cyberspace Operator (H41A), SOF Operator (785B), DNA (H11A), EA (H12A), Cyberspace Planner (H29A), CDA (H30A), CDA-HOST (H31A), CTEO (H32A), CDA-Network (H34A), Instructor (805A), DCO Watch Officer (No NEC). Battle Watch Captain (No NEC). WTI L4/L5 (No NEC). Maritime Staff Operators Course (831A).

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YEARS OF SERVICE	CAREER MILESTONES	AVERAGE TIME TO PROMOTE	COMMISSIONING OR OTHER SPECIAL PROGRAMS	SEA/SHORE FLOW	TYPICAL CAREER PATH DEVELOPMENT
20-23	CTNCM CTNCS CTNC CTN1	21.2 Yrs 16.9 12.3 7.3	CSEL, MACO, CNO Intern Program	Not Defined	6th CONUS/OCONUS **Billets:** Staff Duty (ie. 2nd/3rd/5th/ 6th/7th/10th Fleets/Echelon II/III), DCO Deployer LCPO, CSEL, DEPT LCPO, Cyberspace Operations Planner, Directorate SEL, CMF NCOIC, TECHAD, Detailer, JCAC Manager, , FIRES, NIWDC, Rate Training Leads (JCAC, CIWT, etc). **Duty:** Cyber Mission Force, NIOC, NSA/CSS, NCDOC, DCO Afloat, Embarked Staff, IWTC, NCWDG, DEVGRU, Naval Special Warfare. **Qualification:** SEA, Interactive Operator Training (H13A/14A/15A /16A), US Cyber Command Basic Offensive Cyberspace Operator (H41A), SOF Operator (785B), DNA (H11A), EA (H12A), Cyberspace Planner (H29A), CDA (H30A), CDA-HOST (H31A), CTEO (H32A), CDA-Network (H34A), WTI L4/L5 (No NEC). Instructor (805A), DCO Watch Officer (No NEC). Battle Watch Captain (No NEC). Maritime Staff Operators Course (831A).
16-20	CTNCS CTNC CTN1	16.9 Yrs 12.3 7.3	CWO, CSEL, MACO, CNO Intern Program	Not Defined	5th CONUS/OCONUS **Billets:** Staff Duty (ie. 2nd/3rd/5th/ 6th/7th/10th Fleets/Echelon II/III), DCO Deployer LCPO, CSEL, DEPT LCPO, Cyberspace Operations Planner, Directorate SEL, CMF NCOIC, TECHAD, Detailer, JCAC Manager, , , FIRES, Rate Training Leads (JCAC, CIWT, etc)., NIWDC **Duty:** Cyber Mission Force, NIOC, NSA/CSS, NCDOC, DCO Afloat, Embarked Staff, IWTC, NCWDG, DEVGRU, Naval Special Warfare. **Qualification:** SEA, Interactive Operator Training (H13A/14A/15A /16A), US Cyber Command Basic Offensive Cyberspace Operator (H41A), SOF Operator (785B), DNA (H11A), EA (H12A), Cyberspace Planner (H29A), CDA (H30A), CDA-HOST (H31A), CTEO (H32A), CDA-NETWORK (H34A), Instructor (805A), DCO Watch Officer (No NEC). Battle Watch Captain (No NEC). WTI L4/L5 (No NEC).

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YEARS OF SERVICE	CAREER MILESTONES	AVERAGE TIME TO PROMOTE	COMMISSIONING OR OTHER SPECIAL PROGRAMS	SEA/SHORE FLOW	TYPICAL CAREER PATH DEVELOPMENT
12-16	CTNC CTN1 CTN2	12.3 Yrs 7.3 2.9	LDO, CWO, OCS, MECP, Cyber Warrant (CWO1), MACO, CNO Intern Program	Not Defined	4th CONUS/OCONUS **Billets:** Div LCPO, LPO, Cyberspace Operations Planner, JCU and JCOG, Staff, Instructor, Joint Staff, Navy Staff. **Duty:** Cyber Mission Force, NIOC, NSA/CSS, NCDOC, DCO Afloat, NCWDG, DEVGRU, Naval Special Warfare, JCU and JCOG. **Qualification:** Interactive Operator Training (H13A/14A/15A/16A), US Cyber Command Basic Offensive Cyberspace Operator (H41A), SOF Operator (785B), DNA (H11A), EA (H12A), Cyberspace Planner (H29A), CDA (H30A), CDA-HOST (H31A), CTEO (H32A), CDA-Network (H34A), Instructor (805A), DCO Watch Officer (No NEC). Battle Watch Captain (No NEC).
8-12	CTNC CTN1 CTN2	12.3 Yrs 7.3 2.9	LDO, Cyber Warrant (CWO1), OCS, MECP, STA-21, OCS, MECP, MACO, CNO Intern Program	Not Defined	3rd CONUS/OCONUS **Billets:** Div LCPO, LPO, Cyberspace Operations Planner, JCU and JCOG, Staff, Instructor, Joint Staff, Navy Staff. **Duty:** Cyber Mission Force, NIOC, NSA/CSS, NCDOC, DCO Afloat, NCWDG, DEVGRU, Naval Special Warfare, JCU and JCOG. **Qualification:** Interactive Operator Training (H13A/14A/15A/16A), US Cyber Command Basic Offensive Cyberspace Operator (H41A), SOF Operator (785B), DNA (H11A), EA (H12A), Cyberspace Planner (H29A), CDA (H30A), CDA-HOST (H31A), CTEO (H32A), CDA-Network (H34A), Instructor (805A), DCO Watch Officer (No NEC). Battle Watch Captain (No NEC).
4-8	CTN1 CTN2 CTN3	7.3 Yrs 2.9 0.7		Not Defined	2nd CONUS/OCONUS **Billets:** Analyst and operator OCO or DCO billets. JCU and JCOG, Staff, Instructor, Joint Staff, Navy Staff. **Duty:** Cyber Mission Force, NIOC, NSA/CSS, NCDOC, DCO Afloat, NCWDG, DEVGRU, Naval Special Warfare, JCU and JCOG. **Qualification:** Interactive

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YEARS OF SERVICE	CAREER MILESTONES	AVERAGE TIME TO PROMOTE	COMMISSIONING OR OTHER SPECIAL PROGRAMS	SEA/SHORE FLOW	TYPICAL CAREER PATH DEVELOPMENT
					Operator Training (H13A/14A/15A/16A), US Cyber Command Basic Offensive Cyberspace Operator (H41A), SOF Operator (785B), DNA (H11A), EA (H12A), CDA (H30A), CDA-HOST (H31A), CTEO (H32A), CDA-Network (H34A), Instructor (805A), DCO Watch Officer (No NEC).
1-4	CTN2 CTN3	2.9 Yrs 0.7	Naval Academy, NROTC	Not Defined	1st CONUS **Billets:** Analyst and operator OCO or DCO billets. **Duty:** Cyber Mission Force, NIOC, NSA/CSS, NCDOC, DCO Afloat, NCWDG **Qualification:** Interactive Operator Training (H13A/14A/15A/16A), US Cyber Command Basic Offensive Cyberspace Operator (H41A), DNA (H11A), EA (H12A), CDA (H30A), CDA-HOST (H31A), CTEO (H32A).
1+/-	CTNSN CTNSA Accession Training	9 Months			Recruit Training/Student CTN "A" School (Joint Cyber Analysis Course - JCAC).

Notes:

1. Cryptologic Technicians (Networks) (CTN) plan, develop, and execute offensive and defensive Cyberspace Operations; perform Analysis, Cyber Defense, Digital Forensics, Network Exploitation, Threat Emulation, Research and Development, Direct Support Operations, and Cyber Planning in support of national, fleet, and joint requirements.

2. The CTN rating was established February 2004 and the first CTN selectees were rated October 1st 2004. CTN is an "A" School (JCAC) required rating. The "A" school JCAC was established in Oct 2009.

3. CTN does NOT follow a Sea/Shore Flow (SSF) construct. CTNs can also retour in the same command due to heavy shore billet base, timing and operational priority of billets established; all CONUS tours will be 48-month tours. CTN NECs have historically reflected progressive skill sets earned as one grows from an Apprentice, Journeyman, and to a Mastery level. Typically, CTN will transfer between Cyber Mission Forces (CMF), Navy Information Operations Command (NIOC), Navy Cyber Warfare Development Group (NCWDG), Naval Computer Defense Operations Center (NCDOC), Naval Special Warfare, and DIRSUP Commands. All notes in this paragraph SHALL NOT be a limiting factor for selection / non-selection of the next higher paygrade.

4. CTN is one of seven ratings for the Information Warfare Community. Additionally, while on an operational shore tour or with Naval Special Warfare, DEVGRU, Joint Communications Unit (JCU) and Joint Cyber Operations Group (JCOG), Navy Expeditionary Intelligence Command (NEIC) may accrue extensive deployment days supporting Overseas Contingency Operations and may have the opportunity to qualify EXWS.

5. NECs are: Joint Cyber Analysis Course "A" school (H10A) (The NEC has been deleted from the NEC manual but may still reflect in some Sailor records), Digital Network Analyst (H11A), Exploitation Analyst (H12A), Interactive Operator (H13A-H16A), Special Operations Forces Offensive Cyberspace Operator (785B), Cyberspace Planner (H29A), Defensive Cyberspace Operations Analyst (H30A), Adversarial Pursuit Operator (H31A), and

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Access Network Operator (H32A). In FY21, H30A will be changing to Cyber Defense Analyst – Basic, H31A will be changing to Cyber Defense Analyst – Host, and a new NEC (H34A) for Cyber Defense Analyst – Network. Also in FY21, a new NEC is being created for Basic Offensive Cyberspace Operator for Cyber Mission Force teams.

6. CTNs with NECs H13A-H16A and 785B complete a rigorous training pipeline and considered highly training Network Operators. Sailors with NECs H13A-H16A are required to complete a minimum of two consecutive Interactive On-Net (ION) Operator tours. CTNs with NEC 771B (NSW TIO Operator) are assigned to Naval Special Warfare Development Group (DEVGRU) and Special Reconnaissance Teams (SRT). Assignment as a NSW TIO Operator incurs a five (5) year commitment. Sailors completing the qualification requirements for awarding of these NECs serve in a performance-based mission area and may not support traditional opportunities due to operational requirements and shall not be a limiting factor for selection / non-selection of the next paygrade.

7. DEVGRU, SRTs, Joint Cyber Operations Group (JCOG), Joint Communication Unit (JCU), White House Communications Agency (WHCA) are to be considered career enhancing tours. These special programs require CTNs to be selectively screened and detailed. Subsequent tours within these special programs should not be looked at unfavorably. Those Sailors that are re-toured are placed in leadership billets commensurate at or above their current paygrade.

8. CTNs with the Naval Information Warfighting Development Center (NIWDC) Warfare Tactics Instructor (WTI) Qualification complete a demanding training pipeline; demonstrate advanced technical acumen through development of tactics, techniques and procedures (TTPs) for publication into Naval doctrine. WTI Level IV develop and validate TTPs, and integrate cyberspace operations capabilities into all warfare areas. WTI Level IV billeted to NIWDC will complete Level V requirements and be designated as a WTI Level V. WTI Level V demonstrate advanced instructional techniques; develop, implement, and evaluate curricula, and instruct for the Naval Information Warfighting Development Center (NIWDC) WTI training development cycle.

9. Emphasis should be placed on Sailors in the CTN rating who have clearly demonstrated mission expertise and mission leadership in their rating under their given scope of responsibilities. A career path that has solely focused on traditional leadership positions that have not demonstrated mission impact should not be weighed as heavily. In addition to the standard Navy Apprentice, Journeyman, Master levels, US Cyber Command (USCC) is establishing Basic, Senior, and Master level qualifications. Senior and Master level workroles will be Line of Effort Leads, USCC Weapons and Tactics Directors and Instructors (WTD/WTI), and Mission Directors (MD).

10. Personnel assigned to Recruit Training Command (RTC), Officer Training Command (OTC) and Naval Academy as a Recruit Division Commander, are carefully screened and selected for this high priority assignment.

Considerations for advancement from E6 to E7

- Should clearly demonstrate operational leadership amongst peers by position and performance and team's ability to successfully execute mission.
- Should show strong documented technical and operational knowledge, as well as leadership as Team Leader, Mission Supervisor, Mission Planner, Rating Detailer, Program Manager, or Instructor
- Should have demonstrated success in a high profile position for paygrade, i.e. LPO, Mission Supervisor, DCOWO, Instructor, or other key leadership positions
- Master Training Specialist / Afloat Training Specialist (MTS/ATS) and Enlisted Warfare Qualifications are expected when available at commands with extra consideration for additional warfare qualifications. Those serving in a National instructor capacity should qualify Adjunct Faculty or Faculty Certification
- Should have Command or Assistant Command Collateral Duties with documented successful impact to the command
- Should have FCPOA leadership or strong involvement with documented quantifiable results.
- Should have Sailor 360 involvement and leading a committee
- Enlisted Warfare Pins are expected when available. As of the release of COMNAVIFORINST 1414.1B, EIWS is not mandatory but should remain a factor of consideration when identifying Best Qualified candidates for advancement.

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Considerations for advancement from E7 to E8

- Should demonstrate strong documented technical and operational knowledge and successful leadership in billet assigned
- Demonstrated success in a high profile position for paygrade, i.e. LCPO, Instructor, or other key senior leadership command positions
- Should clearly demonstrate operational leadership amongst peers by position and performance. Active participation and documented successful impact to CTN rating that includes OCCSTDs, MPT, AERR, or Rating Strategy Council
- Master Training Specialist / Afloat Training Specialist (MTS/ATS) and Enlisted Warfare Qualifications are expected when available at commands with extra consideration for additional warfare qualifications.
  Those serving in a National instructor capacity should qualify Adjunct Faculty or Faculty Certification
- Should demonstrate successful impact to the command through Command or Assistant Command Collateral Duties.
- Should have quantifiable results in CPOA leadership or CPO Mess strong influential involvement
- Should have documented results of Sailor 360 and CPO Initiation involvement and leading a committee
- Enlisted Warfare Pins are expected when available. As of the release of COMNAVIFORINST 1414.1B, EIWS is not mandatory but should remain a factor of consideration when identifying Best Qualified candidates for advancement.

Considerations for advancement from E8 to E9

- Should show strong documented technical and operational knowledge and successful leadership in billet assigned
- Should have documented demonstrations while in a high profile position for paygrade, i.e. Directorate SEL, Team NCOIC, Department LCPO, Senior Rating Detailer, OPS Chief or other key leadership positions
- Clear demonstration in leading a Mess and peers through Initiation, command events, collaterals, and mission opportunities.
- Active participation and documented successful impact to CTN rating that includes OCCSTDs, MPT, AERR, or Rating Strategy Council. Master Training Specialist / Afloat Training Specialist (MTS/ATS) and Enlisted Warfare Qualifications are expected when available at commands with extra consideration for additional warfare qualifications.
  Those serving in a National instructor capacity should qualify Adjunct Faculty or Faculty Certification
- Should have demonstrated successful impact to the command while holding Command or Assistant Command Collateral Duties.
- Should have quantifiable results while holding CPOA leadership or strong influential involvement with the CPO Mess.
- Should have documented results of leading Sailor 360 and CPO Initiation while leading a committee
- Enlisted Warfare Pins are expected when available. As of the release of COMNAVIFORINST 1414.1B, EIWS is not mandatory but should remain a factor of consideration when identifying Best Qualified candidates for advancement.
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Cyberspace Cryptologic Technicians (CTN). Similar to the Active Duty component, Reserve CTNs plan, develop, and execute offensive and defensive Cyberspace Operations; perform Cyber Defense, Digital Forensics, Network Exploitation, Research and Development, and Cyber Planning in support of national, fleet, and joint requirements. Each discipline is equal in importance.

YEARS OF SERVICE	CAREER MILESTONES	AVERAGE TIME TO PROMOTE	COMMISSIONING OR OTHER SPECIAL PROGRAMS	SEA/ SHORE FLOW	TYPICAL CAREER PATH DEVELOPMENT
26-30	CTNCM	26.4 Yrs	CMDCM	N/A	CNIFR HQ/Region Staff, Major Command or COCOM Billet: HQ CMDCM, CNIFR Region SEL/Staff, Qualifications: SEA, EIWS
23-26	CTNCM CTNCS	26.4 Yrs 19.6	CMDCM, CWO, DIRCOM, CMC, CSC	N/A	CNIFR HQ/Region Staff, NR NIOC (HI, MD, GA, TX), IWC Units Billets: CMDCM, CSC, SEL, Unit LCPO, Qualifications: SEA, PSEL, EIWS
20-23	CTNCM CTNCS CTNC	26.4 Yrs 19.6 14	CMDCM, CWO, DIRCOM, CMC, CSC, SEL	N/A	CNIFR HQ/Region Staff, NR NIOC (HI, MD, GA, TX), IWC Units Billets: CMDCM, CSC, SEL, Unit LCPO, Qualifications: JCAC, JNAC, SEA, PSEL, EIWS
16-20	CTNCS CTNC CTN1	19.6 Yrs 14 8	CWO, LDO, DIRCOM, CSC, SEL	N/A	CNIFR HQ/Region Staff, NR NIOC (HI, MD, GA, TX), IWC Units Billets: Regional Staff, Unit LCPO DLCPO/LPO, Watch Sup, Lead Analyst Qualifications: JCAC, JNAC, SEA, PSEL, EIWS
12-16	CTNC CTN1	14 Yrs 8	CWO, LDO, DIRCOM, CMC, CSC, CSEL	N/A	CNIFR Region Staff, NR NIOC (HI, MD, GA, TX), IWC Units Billets: Unit LCPO/LPO, DLCPO/LPO, Watch Sup, Lead Analyst, Lead Inst. Qualifications: JCAC, JNAC, PSEL, EIWS
8-12	CTNC CTN1 CTN2 CTN3	14 Yrs 8 3.5 1.2	LDO, DIRCOM	N/A	NR NIOC (HI, MD, GA, TX), IWC Units Billets: Unit LPO, DLPO, Watch Sup, Lead Analyst, Lead Inst. Qualifications: JCAC, JNAC, PSEL, EIWS

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YEARS OF SERVICE	CAREER MILESTONES	AVERAGE TIME TO PROMOTE	COMMISSIONING OR OTHER SPECIAL PROGRAMS	SEA/ SHORE FLOW	TYPICAL CAREER PATH DEVELOPMENT
4-8	CTN1 CTN2 CTN3	8 Yrs 3.5 1.2	DIRCOM, OCS, STA-21, Naval Academy, NROTC	N/A	1st CONUS Active Duty Tour/1st Reserve Assignment Billets: Unit LPO, DLPO, Mission Analyst, Instructor Qualifications: JCAC, JNAC, PSEL, EIWS
1-4	CTN2 CTN3	3.5 Yrs 1.2	Naval Academy, NROTC	N/A	1st CONUS Tour/1st Reserve Assignment Billet: Mission Supervisor, Analyst, Instructor Qualifications: JCAC, JNAC, PSEL, EIWS
1+/-	CTNSN CTNSA Accession Training	9 Months		N/A	Recruit Training and all schools or training events required to be completed prior to reporting to their first operational command or reserve unit

Notes:
1. "A" School is required for this rating via the Joint Cyber Analysis Course (JCAC).

2. This is not a compressed rating.

3. EIWS and other warfare qualifications should be viewed as a noteworthy achievement by Selection Boards. Only Sailors assigned or mobilized to units under operational commands with an approved program have an opportunity to qualify, but this requires the Sailor to take the initiative. Refer to COMNAVIFOR INSTRUCTION 1414.1A for information related to the EIWS program.

4. Cross-assignment to an Information Warfare Community (IWC) billet may be required due to geographic limitations based on Sailor's home of record. This may restrict assignment diversity; however, Sailors should make every effort to seek career diversity or diversity in challenging billet assignment. Cross-assignment PRDs are usually limited to 24 months.

5. Embedded billet assignment (EMBED) is not recommended for junior enlisted during first tour; however, assignment may be necessary (See Note 3). Coordination should be made between NOSC CCC office and CNIFR Regional EMBED Coordinator.

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6. PRDs are usually limited to 36 months with exception of assignments to special programs, or while in an advanced training pipeline (e.g. Cyber Mission Force/Cyber Protection Team (CMF/CPT)). Sailors meeting these exceptions can be assigned for 60 months. Cross-assignment PRDs are usually limited to 24 months.

7. Rating NECs:
   H13A - Navy Interactive On-Net Operator
   H12A - Exploitation Analyst
   H11A - Digital Network Analyst
   H14A - Navy Interactive On-Net (ION) Operator (Windows)
   H15A - Navy Interactive On-Net (ION) Operator (Unix)
   H16A - Navy Interactive On-Net (ION) Operator (Networks)
   H07A - Applied Cyber Operations Master
   H30A - Defensive Cyberspace Operations Analysts (DCOA)

NOTE: Listed NECs are only those that SELRES are qualified to earn based upon NAVPERS 18068F Volume 2.

Considerations for advancement from E6 to E7:

-Demonstrated leadership and subordinate development utilizing technical expertise via earned platform PQS/watch qualifications or other Navy Credentialing programs (i.e., Navy COOL)
-Served as a mission lead with impact to unit and gaining command operational readiness.   As a subject matter expert; mentors and tasks team members and works to overcome obstacles.
- Demonstrated institutional expertise through completion of Professional Military Education (PME), Primary PME, Senior Enlisted Joint PME (SE-JPME) Phase I, or advanced civilian education or certifications/ qualifications demonstrating civilian transferability of skills
-Demonstrated rating subject matter expertise (SME) through community engagements and participation in A and C School Training Requirements Reviews (TRR), Occupational Standards (OCCSTDs) reviews/development, etc.
-Completion a rate-specific mobilization or other active duty assignment in support of fleet, joint, or special operations
- Served as LPO or divisional LPO for large unit or any periods of documented acting Unit LCPO duties
- Diversity in challenging command-level collaterals that support command mission and leadership (e.g. CFL, Unit Cross-Assignment Coordinator, Command Career Counselor, Urinalysis Program Coordinator (UPC), etc.).
- Leader in Sailor 360 program
- Held FCPOA leadership position(s)
- Warfare qualified (Note 3)

Considerations for advancement from E7 to E8:

-Demonstrated leadership of subordinates and peer development utilizing technical expertise through earned platform PQS/watch qualifications or Navy Credentialing programs (i.e., Navy COOL)
- Demonstrated institutional expertise through completion of Senior Enlisted Academy (SEA), Prospective Senior Enlisted Leader (PSEL) course, Reserve Senior Enlisted Management (RSEM), Navy Reserve Unit Manager's (NRUM) course, PPME, SE-JPME Phase I/II, CNIFR Regional Triad Leadership conferences, or advanced civilian education or certifications/qualifications demonstrating civilian transferability of skills
-Served as an operations chief with impact to unit and gaining command operational readiness.   As a subject matter expert; mentors and develops mission leads and works to overcome obstacles.
- Demonstrated rating SME in community engagements through participation in A and C School TRRs, Reserve Intelligence Leadership Summit (RILS), OCCSTDs, AERRs, etc.

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-Completion a rate-specific mobilization or other active duty assignment in support of fleet, joint, or special operations
- Warfare qualified (Note 3)
- Assignment as unit LCPO, especially where there are large summary groups and opportunity to lead peers and develop juniors
- Diversity in billet or platform assignment (Note 4 and 5); to include: CNIFR HQ (TYCOM) or Regional Staff, LCPO of Expeditionary, Cyber, EMBED, etc.
- Leader in Sailor 360 program and in CPO Initiation
- Held CPOA leadership position(s)

Considerations for advancement from E8 to E9:

- Demonstrated leadership of subordinate and peer development utilizing technical expertise through earned platform PQS/watch qualifications or other Navy COOL programs
- Demonstrated institutional expertise through completion of SEA, PSEL, NRUM, PPME, SE-JPME Phase II, CNIFR Regional Triad Leadership conferences, or advanced civilian education or certifications/qualifications demonstrating civilian transferability of skills
- Demonstrated rating SME in community engagements through participation in A and C School TRRs, RILS, OCCSTDs, AERR, etc. and/or selection as CNIFR Rating Advisor
-Completion a rate-specific mobilization or other active duty assignment in support of fleet, joint, or special operations
- Warfare qualified (Note 3)
- Assignment as unit LCPO, especially where there are large summary groups and opportunity to lead peers and develop juniors
- Diversity in billet or platform assignment (Note 4 and 5); to include: CNIFR HQ (TYCOM), Regional NIFR Staff, Regional Operations Chief, or LCPO of Expeditionary, Cyber, EMBED, etc.
- Leader in Sailor 360 program and in CPO Initiation
- Held CPOA leadership position(s)

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Cryptologic Technician - Networks
Occupational and Readiness Standards (OaRS) to E4
NAVEDTRA 44028

NAME:

These Occupational and Readiness Standards (OaRS) may be used to validate minimum competencies for performing various rating-specific tasks in paygrade E4 in this rating. OaRS is based on the Occupational Standards (OCCSTDs) for the rating/paygrade. An E4 should possess the minimum competencies of their rating/paygrade, whereby OaRS may provide benefits as a tool to train towards and track those competencies achieved.

OaRS does not address ship/unit/system specific standards, which may be covered within Personnel Qualification Standards (PQS), Job Qualification Requirements (JQR), or local training/qualification programs. OaRS addresses the overall rating at the E4 level, not the Sailor's position, billet, or duty assignment.

Generally, each OaRS task area encompasses one or more occupational standards on the same or similar subjects and is written in on-the-job rating language. Completion indicates the Sailor can perform the tasks or can articulate knowledge of the tasks. If circumstances exist that limits a Sailor's ability to effectively demonstrate any OaRS task element due to equipment configuration, mission, or operational status, the Sailor can seek training or understanding from his/her peers, leadership, or refer to technical manuals.

OaRS completion is voluntary and is not designed to replace other qualification programs (e.g. PQS, JQR). OaRS items that duplicate "sign off" items in these types of programs can be signed off if they have already been signed off under any of these types of programs.

Task signatures are completed between the Sailor and the Sailor's supervisor, Leading Petty Officer (LPO) or E5 or above designee. Task sections are signed off by the Division Leading Chief or designee. Endorsement of completion of all OaRS tasks/sections are validated by the Division Officer, Department LCPO, Department Head, and Command Career Counselor (CCC).

CYBER ANALYSIS

Task Objective	** Supv Init	Date
Analyze common system services		
Analyze data to reconstruct and document target networks		
Analyze identified malicious activity (e.g., determine weaknesses exploited, exploitation methods, effects on system and information, etc.)		
Analyze metadata and data of targeting significance		
Analyze network and system artifacts to identify potential malicious activity (e.g., logs, malware, and system configuration files, etc.)		
Analyze network intrusion global threat activity data		
Analyze network or system alerts from various sources within the enterprise and determine possible causes of such alerts		
Analyze network security architecture components		
Analyze network traffic to identify anomalous activity and potential threats		
Analyze Operating System (OS) characteristics		
Analyze raw data		
Analyze remote system environments		
Analyze remote target network composition		
Analyze system, event and network logs		
Analyze target implementation of technologies and digital network systems		
Analyze threat Tactics, Techniques, and Procedures (TTP)		
Assess auditing and logging on target systems		
Assess target network vulnerabilities		
Conduct all source research		
Conduct end point analysis (clients and servers)		
Conduct initial target development		
Conduct mid-point analysis (e.g., routers, firewalls, etc.)		
Define basic structure and architecture of networks		
Detect network vulnerabilities		
Determine intelligence value		
Determine threat Tactics, Techniques, and Procedures (TTP)		
Develop network map		
Develop target templates		
Differentiate incidents and events from benign activities		
Evaluate raw data (e.g., Signals Intelligence (SIGINT), network, wireless, etc.)		
Evaluate scanning activity		
Examine communication metadata and content		
Identify access vectors for networks of interest		
Identify applications and operating systems of a network device based on network traffic		
Identify metadata and data of targeting significance		
Identify remote target network functions		
Identify technical solutions from multi-source data		
Interpret source code at a basic level		
Maintain awareness of advancements in hardware and software technologies and their potential implications (e.g., attend training or conferences, reading, etc.)		
Maintain operational situational awareness		
Perform file signature analysis		
Perform file system analysis		
Perform network traffic analysis		
Perform packet analysis		
Perform protocol analysis		
Perform research, analysis, and correlation across a wide variety of all source data sets		
Perform survey collection and analysis of wireless data		
Perform timeline analysis		
Perform triage forensic analysis		
Perform triage malware analysis		
Validate network alerts		
Verify target capabilities		

** Supv Init may be LPO or E5 or above designee

DIVISION LEADING CHIEF (OR DESIGNEE) SIGNATURE:

CYBER DEVELOPMENT AND EVALUATION

Task Objective	** Supv Init	Date
Create simple scripts (e.g., Python, PowerShell, UNIX Scripting, etc.)		
Develop capabilities using scripting languages		
Evaluate advancements in hardware and software technologies and their potential implications		
Perform boolean logic		
Perform discrete math functions		

** Supv Init may be LPO or E5 or above designee

DIVISION LEADING CHIEF (OR DESIGNEE) SIGNATURE:

CYBERSPACE OPERATIONS

Task Objective	** Supv Init	Date
Assess operational environment		
Collaborate with intelligence analysts/targeting organizations involved in related areas		
Collect forensic evidence		
Collect network data		
Conduct Computer Network Exploitation (CNE) operations		
Conduct Defensive Cyberspace Operations (DCO)		
Conduct network enumeration and vulnerability analysis of systems within a network		
Conduct network surveys		
Discover metadata and data of targeting significance		
Gather target information and network enumeration		
Implement tools and techniques on a specific target		
Initiate requests for information		
Intercept network traffic		
Navigate file systems		
Perform host discovery		
Prepare summary reports of network events		
Prevent unauthorized cyberspace operations		
Process data sets to tailor analytic efforts		
Provide input for operational reporting (e.g., Commanders Critical Information Requirements, Situation Report (SITREP), etc.)		
Provide input to cyberspace Concept of Operations (CONOPs)		
Provide time sensitive reporting information (e.g., Critical Intelligence Communication (CRITIC), Commanders Critical Information Requirements (CCIRs), voice reports, etc.)		
Provide timely detection, identification, and alerting of possible attacks/intrusions, anomalous activities, and misuse activities		
Report current/emerging cyberspace threats, intrusions, incidents, and events		
Respond to requests for information		
Utilize a testing environment for software		

** Supv Init may be LPO or E5 or above designee

DIVISION LEADING CHIEF (OR DESIGNEE) SIGNATURE:

SECURITY AND ADMINISTRATION

Task Objective	** Supv Init	Date
Apply and obey applicable statutes, laws, regulations and policies		
Apply security measures		
Control access to Sensitive Compartmented Information Facility (SCIF)		
Destroy Sensitive Compartmented Information (SCI) materials		
Document receipt of Sensitive Compartmented Information (SCI) materials		
Employ applicable statues, laws, regulations, and policies		
Implement Emergency Action Plan (EAP)		
Inventory Sensitive Compartmented Information (SCI) materials		
Maintain Sensitive Compartmented Information Facilities (SCIF) access control		
Safeguard Sensitive Compartmented Information (SCI) materials		
Store Sensitive Compartmented Information (SCI) materials		
Verify operational authorities		

** Supv Init may be LPO or E5 or above designee

DIVISION LEADING CHIEF (OR DESIGNEE) SIGNATURE:

PENALTY STATEMENT

Any person who, with intent to deceive, signs any false record, return, regulation, order, or other official document, knowing it to be false, or makes any other false official statement knowing it to be false, shall be punished as a court-martial may direct.
(Aug. 10, 1956, ch. 1041, 70A Stat. 71; Pub. L. 114–328, div. E, title LX, § 5419, Dec. 23, 2016, 130 Stat. 2946.)

COMMAND ENDORSEMENT

Command signatures signify the meeting of the minimum competencies for those in paygrade E-4 in this rating.
Signature level at discretion of command.

DIVISION OFFICER:

_____

DEPARTMENT LCPO:

_____

DEPARTMENT HEAD:

_____

COMMAND CAREER COUNSELOR:

_____

PENALTY STATEMENT
Any person who, with intent to deceive, signs any false record, return, regulation, order, or other official document, knowing it to be false, or makes any other false official statement knowing it to be false, shall be punished as a court-martial may direct.
(Aug. 10, 1956, ch. 1041, 70A Stat. 71; Pub. L. 114–328, div. E, title LX, § 5419, Dec. 23, 2016, 130 Stat. 2946.)

Command Comments – Command Use Only:

Enlisted Community Manager Comments:

Once an individual Sailor's Occupational and Readiness Standards (OaRS) have been completed and endorsed by the Command Career Counselor (CCC), documentation of completed OaRS by the Command Pay and Personnel Administrator (CPPA), Training Officer, or other authorized command representative will be via Navy Standard Integrated Personnel System (NSIPS) within the Personnel Qualifications section, or Advanced Skills Management (ASM) within the Qual/Cert Records tab. Entries will generate an Enlisted Service Record (ESR) and Electronic Training Jacket (ETJ) entry. These entries provide Sailors with electronic documentation of OaRS completion as well as Command and Navy stakeholders ability to monitor the execution of OaRS.

LaDR
NAVY LEARNING and DEVELOPMENT ROADMAP

Cryptologic Technician - Networks
Seaman Recruit to Seaman

NAME:

SKILL TRAINING
(Schools, courses and assignments directly related to occupation)

REQUIRED SKILL TRAINING

Course Title	Course Location	CIN/CSE ID	Course Length	Date Completed
Joint Cyber Analysis Course (JCAC) (0000) [1]	Pensacola, FL	A-531-1900	27 weeks	
SCI Security and Emergency Destruction [1]	Local / On-line	NSGTP 683-11-00-01		
NMT [1]				

1 - Reserve opportunities may exist, contact Reserve Forces Code N7 for authorization.

RECOMMENDED SKILL TRAINING

Course Title	Course Location	CIN/CSE/ACE ID	Course Length	Date Completed
None				

NAVY ENLISTED CLASSIFICATION CODE (NEC) OPPORTUNITIES

Course Title	Course Location	CIN/CSE/ACE ID	Course Length	Date Completed
0000 - Joint Cyber Analysis Course (JCAC) [1]	Pensacola, FL	A-531-1900	27 weeks	
H30A - Intermediate Cyber Core [1]	Pensacola, FL	A-531-4421	8 weeks	
H31A - Discovery and Counter Infiltration [1]	Pensacola, FL	A-531-4415	8 weeks	
H32A - Cyber Threat Emulation [1]	Pensacola, FL	A-531-4417	6 weeks	

1 - Reserve opportunities may exist, contact Reserve Forces Code N7 for authorization.

JOB DESCRIPTION

Cryptologic Technicians (Networks) (CTN) provide advanced technical analysis and solutions to produce Cyber Capabilities and Non-Kinetic effects in support of operational commanders and national intelligence requirements. Duties include, but are not limited to, Computer Network Defense Analysis, Digital Forensics Analysis, and Digital Network Analysis.

RECOMMENDED BILLET ASSIGNMENTS

Navy Information Operations Command (NIOC) Hawaii
NIOC Suitland, MD
NIOC Georgia, Augusta, GA
NIOC Pensacola, FL
NIOC Texas, San Antonio, TX
Cryptologic Warfare Maratime Activity Sixty-One, Fort Meade, MD
Cyber Strike Activity Sixty-Three, Fort Meade, MD
Cyber Defense Activity Sixty-Four, Fort Meade, MD
Cryptologic Warfare Activity Sixty-Five, Fort Meade, MD
Cryptologic Warfare Activity Sixty-Six, Fort Meade, MD
Cryptologic Warfare Activity Sixty-Seven, Fort Meade, MD
Navy Cyber Defense Operations Command (NCDOC) Suffolk, VA
Cyber Mission Forces

PERSONAL AND PROFESSIONAL DEVELOPMENT
(Completed at reporting 60 day Career Development Board)

Command Address

QD Phone Number:

Mobilization UIC:

Naval Reserve Activity:

Division Officer: Phone Number:

Leading Chief Petty Officer: Phone Number:

Leading Petty Officer: Phone Number:

Sponsor/Mentor: Phone Number:

Depart/Division Career Counselor: Phone Number:

Date of Initial Entry to Military Service (DIEMS):   Date of Initial Entry Reserve Forces (DIERF):

Pay Entry Base Date (PEBD):

ADSD: Report Date: EAOS/EOS: PRD: SEA / SHORE: /

PAYGRADE E1/E2 (9 months time in service required for advancement to E2 and E3)
PAYGRADE E3 (6 months time in service required to be eligible for advancement to E4)

Date Advanced: Eligible Advancement Date: Number of times up:

HYT Date: Security Clearance Level: Date Last updated:

Command INDOC complete:

CAREER DEVELOPMENT BOARDS:
Use OPNAVINST 1040.11(ser) & Career Counselor Handbook NAVPERS 15878
Reason for Convening/Discussion Items: (Upon completion update (CIMS) Career Information Management System)

Reporting (within 60 days for active duty or four drill weekends for SELRES) (Date Conducted):

Professional Apprenticeship Career Track (PACT) only:
6 Month: 12 Month: 18 Month:

24 Month: 48 Month: 60 Month:

Family Care Plan: Mil to Mil:

Sailor 360:   Special Program: Member Request:

HYT 24 months (Date):   HYT Waiver Date: ☐ Approve   ☐ Disapprove

C-WAY-REEN 18 months to EAOS/EOS: Career Waypoint not approved:

Rating Conversion: Navy Formal Training Schools Request ("A"/"C"etc):

Transfer: Separation: Career Status Bonus (election message received):

Physical Fitness Test Failure: Overseas Tour Extension Incentives Program (OTEIP):

Advancement Center: Visit MNP Advancement & Promotion page located under the Career & Life Events Tab
(Items to collect/discuss: Bibliography for Advancement, Enlisted Advancement Exam Strategy Guide, Profile Sheets)
Advancement:

Enlisted to Officer Commissioning Program Application & Administration Manual OPNAVINST 1420.1(series):
Commissioning Programs Applications: (prior to submission, command endorsement):
Seaman to Admiral 21 (STA-21):   Medical Enlisted Commissioning Program (MECP):
Naval Academy: Naval Academy Preparatory School (NAPS):
Officer Candidate School:

QUALIFICATIONS

Sea/Shore General Qualifications Watch Standing Qualifications	Report Date	Completion Date (N/A if not required)
Duty Driver		
Messenger of the Watch (MOOW)		
Cybersecurity (NAVEDTRA 43469-B)		

Mandatory warfare qualification for enlisted Sailors assigned to designated warfare qualifying commands:

Warfare qualification programs	Report Date	Completion Date (N/A if not required)
Information Warfare Specialist		

Rate Specific/Department Qualifications (Add)	Report Date	Completion Date (N/A if not required)

Notes on Qualifications:

NAVY ENLISTED RETENTION AND CAREER DEVELOPMENT TOOLS

Navy Retention and Career Development Tools are web-based applications designed to support and enhance Sailor career management, retention and professional/personal development. Specifically, these tools are designed to assist in Sailor professionalization, advancement, retention, cross rating, and transitioning. Use of these tool allows Career Counselors to provide better guidance on education, professional growth, career requirements and opportunities to individuals in the Navy and for Sailors to take an active role in their professional development and career management. These tools include:

Navy COOL - https://www.cool.osd.mil/usn/
USMAP - https://usmap.osd.mil/
MilGears - https://milgears.osd.mil/

CREDENTIALING

Navy Credentialing Opportunities On-Line (Navy COOL): Navy COOL assists Sailors (active & reserve) by funding the certification & licensing exams that map their Navy education, training, experience, and competencies to industry/civilian-recognized credentials and occupational equivalents. Sailors may obtain funding for credential examinations, renewals, maintenance fees, and other mandatory examination administrative fees.

The following certifications and licenses are applicable to the CTN-Cryptologic Technician Networks rating. *They may require additional education, training or experience.*

For more information about these credentials, visit NAVY COOL at https://www.cool.osd.mil/usn/.

Target Paygrade	Certifying Agency	Credential Title	Date Completed
E6	CertNexus (formerly Logical Operations)	CyberSec First Responder (CFR)	
E5	Cisco Systems, Inc.	Cisco Certified CyberOps Associate	
	Cisco Systems, Inc.	Cisco Certified DevNet Associate	
	Cisco Systems, Inc.	Cisco Certified DevNet Professional	
E5	Cisco Systems, Inc.	Cisco Certified Network Associate (CCNA)	
	Cisco Systems, Inc.	Cisco Certified Technician Routing and Switching (CCT Routing and Switching)	
E7	Computing Technology Industry Association (CompTIA)	CompTIA Advanced Security Practitioner (CASP+)	
E5	Computing Technology Industry Association (CompTIA)	CompTIA Cybersecurity Analyst (CySA+)	
	Computing Technology Industry Association (CompTIA)	CompTIA IT Fundamentals (ITF+)	
E5	Computing Technology Industry Association (CompTIA)	CompTIA Linux+	
E4	Computing Technology Industry Association (CompTIA)	CompTIA Network+	
E6	Computing Technology Industry Association (CompTIA)	CompTIA PenTest+	
E4	Computing Technology Industry Association (CompTIA)	CompTIA Security+	
E4	CyberSecurity Institute	CyberSecurity Forensic Analyst (CSFA)	
E5	Electronics Technicians Association, International (ETA-I)	Information Technology Security (ITS)	
E5	Global Information Assurance Certification (GIAC)	GIAC Assessing and Auditing Wireless Networks (GAWN)	
	Global Information Assurance Certification (GIAC)	GIAC Certified Detection Analyst (GCDA)	
E6	Global Information Assurance Certification (GIAC)	GIAC Certified Forensics Analyst (GCFA)	
E6	Global Information Assurance Certification (GIAC)	GIAC Certified Incident Handler (GCIH)	
E6	Global Information Assurance Certification (GIAC)	GIAC Certified Intrusion Analyst (GCIA)	
E6	Global Information Assurance Certification (GIAC)	GIAC Certified Penetration Tester (GPEN)	
E6	Global Information Assurance Certification (GIAC)	GIAC Continuous Monitoring Certification (GMON)	
E6	Global Information Assurance Certification (GIAC)	GIAC Critical Controls Certification (GCCC)	

Target Paygrade	Certifying Agency	Credential Title	Date Completed
	Global Information Assurance Certification (GIAC)	GIAC Cyber Threat Intelligence (GCTI)	
E6	Global Information Assurance Certification (GIAC)	GIAC Global Industrial Cyber Security Professional (GICSP)	
E5	Global Information Assurance Certification (GIAC)	GIAC Network Forensic Analyst (GNFA)	
E5	Global Information Assurance Certification (GIAC)	GIAC Python Coder (GPYC)	
E4	Global Information Assurance Certification (GIAC)	GIAC Security Essentials Certification (GSEC)	
E6	Global Information Assurance Certification (GIAC)	GIAC Security Leadership Certification (GSLC)	
E6	Global Information Assurance Certification (GIAC)	GIAC Systems and Network Auditor (GSNA)	
E5	International Council of Electronic Commerce Consultants (EC-Council)	Certified Ethical Hacker (CEH)	
	International Council of Electronic Commerce Consultants (EC-Council)	Certified Network Defender (CND)	
E7	International Information Systems Security Certification Consortium, Inc. (ISC)²	Certified Information Systems Security Professional (CISSP)	
E7	International Information Systems Security Certification Consortium, Inc. (ISC)²	Systems Security Certified Practitioner (SSCP)	
E6	ISACA	Certified Information Security Manager (CISM)	
	Linux Foundation	Linux Foundation Certified IT Associate (LFCA)	
	Linux Professional Institute (LPI)	Linux Professional Institute LPIC-1	
	McAfee Institute	Certified Counterintelligence Threat Analyst (CCTA)	
	McAfee Institute	Certified Cyber Intelligence Investigator (CCII)	
	McAfee Institute	Certified Cyber Intelligence Professional (CCIP)	
	Microsoft Corporation	Microsoft Certified: Security Operations Analyst Associate	

Out of Rate Certifications and Licensure

Academic Degrees – You are now eligible for credentials towards an earned academic degree.

Cross-Rated Sailors – If you have cross-rated, you now are eligible for credentials related to your prior rating.

Off-Duty or Command-Sponsored Training – You are now eligible for credentials for documented training that fully prepares you for a credential.

Navy Reservists – You may now be eligible for funding of credentials related to your civilian occupation.

Prior Other-Service Enlisted Occupation - If you are Navy enlisted (Active or Reserve), you may now be eligible for funding for credentials related to prior other-Service (Army, Air Force, Marine Corps, Coast Guard) enlisted occupation.

Collateral Duty/Out of Rate Assignments - Credentials are also available in these collateral duties/out of rate assignments in which you are serving in or have served in.

Credentials Earned & Maintained Prior to Joining the Navy - If you are Navy enlisted (Active or Reserve), you may now be eligible for funding for credentials that were earned, and maintained, prior to your enlistment in the Navy. The certification or license must have relevance to the needs of the Navy, and must appear on Navy COOL, although it does not need to show the Navy Bucks icon to be funded.

* See the *Additional Funding Opportunities* section on any rating page on Navy COOL for further details.

United Services Military Apprenticeship Program (USMAP): USMAP is available to most active duty occupations and is certified by the U.S. Department of Labor. This is the largest apprenticeship program operating in the U.S. and is recognized by all 50 states. Completion of one of these programs would qualify you as a journeyman, which could mean a significantly higher starting salary in the civilian work force. Most programs require 5-8 years to complete but are transferable if you decide to leave the service prior to completion. USMAP opportunities also exist for SELRES with orders over 12 months.

The following USMAP apprenticeships are applicable to the CTN-Cryptologic Technician Networks rating.

For more information about these apprenticeships, visit USMAP at https://usmap.osd.mil/index.htm.

Apprenticeship	Date Completed
Computer Operator	
Internetworking Technician	

MilGears: MilGears leverages the COOL platform to provide Service members with a personalized, self-assessment of the individual's military training & experience and off-duty education & credentialing, for the purposes of providing recommendations and next steps to pursue and achieve industry credentialing, in-service advancement, and ultimately post-service employment. Use MilGears to build a comprehensive record that captures all the learning, experience, and related skills you've gained to support preparation for career advancement. MilGears will provides multiple search methods to find credentials that can help build your subject matter expertise related to your military career, as well as prepare you for a career after transition. Use your time in service to pursue certifications, education, and experience that can help you achieve your goals.

Of the several tools found on MilGears, the two most common that Sailors would use are the Engage My Career Tool and the Quick Explorer Tool.

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ENGAGE MY CAREER TOOL

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The Engage My Career (EMC) Tool, available from the MilGears home page, analyzes your unique history to provide customized results. The EMC Tool looks at what you've done in the military to date by guiding you through a series of questions that collect information such as: your rating, pay grade, duty station history, training, NECs, qualifications (applicable to Mariner careers), and civilian education or credentials. The EMC Tool then takes this information and helps you determine your best path forward by showing you the possible occupation options you may be eligible for based on your current experience.

Customized output includes:

- Civilian occupations that may be attainable or nearly attainable.
- Apprenticeships, certifications, and education that can help you fill training gaps or that could make you more competitive in the job market.
- How You Stack Up - a detailed view of how you compare to the typical requirements for civilian occupations and credentials.
- Next Steps - recommendations to fill gaps to enter an occupational field.

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QUICK EXPLORER TOOL

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The Quick Explorer Tool, available from the MilGears home page, allows Service members to explore occupations without uploading personal information.

The following areas are available for exploration:

- Credentials - explore pathways related to a specific credential such as a degree, a certification, a USMAP apprenticeship or a federal license.
- Career Goals - explore pathways based on career goals through job family, industry and more.
- Military Occupation - explore pathways by MOC to view 'best-fit' pathways based your military occupation. Pathways include academic, industry, apprenticeship, cross-rate opportunities, and post-service employment opportunities.
- Interests - answer a series of questions designed to discover your personal interests and connect them to career pathways.

For more information about these MilGears tools, visit https://milgears.osd.mil/.

**These Navy Retention and Career Development Tools web-based applications may be available to Sailors who

change their Navy affiliation from the Navy active component to affiliation with the Navy Reserve component.**

POST MILITARY OCCUPATIONS

The following post military occupations are similar to the CTN-Cryptologic Technician Networks Rating. For more information about these occupations, visit NAVY COOL at https://www.cool.osd.mil/usn/.

Occupation (Civilian Employer)
Computer and Information Systems Managers
Computer Network Support Specialists
Information Security Analysts
Network and Computer Systems Administrators
Penetration Testers

Occupation (Federal Employer)
0332 - Computer Operation Series
0335 - Computer Clerk and Assistant Series
1540 - Cryptography Series
1541 - Cryptanalysis Series
1550 - Computer Science Series
2210 - Information Technology Management Series

SkillBridge: The Navy's SkillBridge program is an opportunity for Sailors to gain valuable civilian work experience through specific industry training, apprenticeships, or internships during the last 180 days of service. SkillBridge connects Sailors with industry partners in real-world job experiences. For Sailors SkillBridge provides an invaluable chance to work and learn in civilian career areas. For industry partners SkillBridge is an opportunity to access and leverage the world's most highly trained and motivated workforce at no cost. Sailors participating in SkillBridge receive their military compensation and benefits, and industry partners provide the training and work experience.

Each Navy command establishes local SkillBridge participation procedures.

For more information about these SkillBridge opportunities, visit https://skillbridge.osd.mil/index.htm.

AC to AC and FTS to FTS - Continue Navy career on Active Duty.

E6 and below with less than 14 years of service will require a C-Way Application to be approved for reenlistment or extension.

Once C-Way application is approved, the Sailor should request to Reenlist or Extend with the appropriate form.

REENLIST / EXTEND: Request Chit/Form:

Career Waypoints-Reenlistment Approval:

School as a Reenlistment Incentive:

Prior Service Reenlistment Eligibility - Reserve (PRISE-R):

MyNavy Assignments (MNA):

Medical/Dental Screening:

Command Recommendation (evaluation):   Bonus: Ceremony:

RC to AC/FTS

See MILPERSMAN 1306-1505: Sailors may complete a component change from the Reserve Component (RC) to AC (RC2AC/FTS). This not only leverages existing skill sets that reside in the RC population to improve and maintain AC community health, but also provides qualified Sailors with an opportunity to resume or begin a career in the AC/FTS. This component change refers to a permanent transfer from RC2AC/FTS. This voluntary program enables qualified, eligible enlisted RC Sailors to submit applications in Career Waypoints (C-WAY) based on available quotas published on the Bureau of Naval Personnel (BUPERS), Enlisted Community Manager (BUPERS-32) Web page at: https://www.public.navy.mil/bupers-npc/enlisted/community/selres/Pages/EnlistedReserveOpportunities.aspx.
If you have any questions or concerns, contact your unit or NOSC career counselor.

RC to RC - Continue your Navy career as a Reservist.

Submit reenlistment request utilizing NAVRES 1160/1 Drilling Reservist Reenlistment Worksheet.

REENLIST / EXTEND: Request Chit/Form:

School as a Reenlistment Incentive:

MyNavy Assignments (MNA):

Medical/Dental Screening:

Command Recommendation (evaluation):   Bonus: Ceremony:

AC/FTS to CIP

The Career Intermission Program allows Officers and Enlisted Sailors to transfer out of the active component (AC/FTS) and into the Individual Ready Reserve for a period of one to three years to pursue personal or professional obligations outside the Navy, while providing a means for their seamless return to active duty.
For additional information, go to: https://www.public.navy.mil/bupers-npc/career/reservepersonnelmgmt/IRR/Pages/CIP.aspx.

AC/FTS to Secretary of the Navy Tours with Industry

This program provides a venue for exceptional Sailors to experience innovative business practices. Navy fellows are fully immersed in company practices and will be actively engaged in projects and company operations. Past fellows were assigned to companies including VMware, Qualcomm, Apple, Incorporation, Boeing, Tesla, Oak Ridge National Laboratory, GE Digital, Amazon, FedEx, Northrup Grumman, Space X, LinkedIn and USAA.
For additional information go to: https://www.public.navy.mil/bupers-npc/career/talentmanagement/Pages/SNTWI.aspx.

Canvasser Recruiter (CANREC)

The Canvasser Recruiter (CANREC) Recall Program is a voluntary and temporary recall program for RC personnel to serve as production recruiters in support of the Navy Prior Service recruiting mission. Personnel eligible to volunteer for a Definite (also termed as "temporary") Recall to Active Duty (ACDU) as a CANREC are Reserve Component (RC) members, specifically Selected Reserve (SELRES), Individual Ready Reserve (IRR-ASP), and Voluntary Training Unit (VTU) personnel.
For additional information, go to:
   https://www.public.navy.mil/bupers-npc/career/reservepersonnelmgmt/definiterecall/Pages/CANRECRecall.aspx.

Career Waypoints-Reenlistment:

The Command Career Counselor is your local advocate to assist you with the Career Waypoints application process.
- E3-E6 Sailors with less than 14 years of service must submit a Career Waypoints application, regardless of reenlistment intentions. Sailors who do not desire to reenlist will submit an "intends to separate" application. Sailors not eligible for reenlistment will submit a "not eligible" application.
- The Career Waypoints system automatically generates most of the applications needed by Sailors. Applications must be submitted no later than 16 months prior to expiration of active/reserve obligated service (EAOS/EOS) or as extended (SEAOS/SEOS). Sailors with less than 24 months of contract time remaining at their projected rotation date (PRD) will submit an application 15 months prior to their PRD. In either case, the Career Waypoints system will automatically generate

applications for Sailors 18 months prior to either timeframe. Applications required outside of the established C-Way gates can be submitted as Special Circumstance applications. Examples of when these may be needed include OBLISERVE for special duty, decommissioning or homeport shift.

- The C-Way 3-2-1 Process aligns career decisions with the detailing process. Soft End of Active/Reserve Obligated Service (SEAOS/SEOS)/End of Active/Reserve Obligated Service (EAOS/EOS) applications are created by C-Way at the 18 month from S/EAOS/EOS mark and must be submitted by the Command Career Counselor at the 16 month mark. This provides time for the Career Counselor to validate the Sailor's information and to ascertain the Sailors career intentions. The first C-Way review gate occurs from 16 to 13 months from S/EAOS/EOS with career choice options of in-rate, conversion, and Selected Reserve. The second review gate occurs from 12 to 9 months from S/EAOS/EOS with career choice options of conversion and Selected Reserve. From 8 months to 4 months to S/EAOS/EOS the Sailor can only choose Selected Reserve affiliation.

- Monthly reenlistment quotas are limited and must be reserved for our best and brightest Sailors who desire to Stay Navy. Sailors must choose one of the following based on their desires and qualifications:
  - Reenlist-in-Rate,
  - Reenlist-in-rate, Willing to Convert
  - Convert only
  - AC to AC or FTS to FTS
  - RC to AC/FTS
  - RC to RC
  - AC/FTS to CIP (Intermission)
  - AC/FTS to Tour w/ Industry
  - SELRES option
  - Canvasser Recruiter
  - Intend to separate
  - Not eligible

In February 2014, C-Way delivered auto-approval capabilities to provide reenlistment decisions on S/EAOS/EOS applications more quickly for eligible ratings. This changed the monthly processing of reenlistment applications as described below.

- If you are in an, "open" rating or a "balanced" rating in an undermanned year group or an E6, you are eligible for reenlistment, and your application is submitted with correct data it will be auto-approved and returned immediately, and you can reenlist.
- If you are in a "competitive" rating or a balanced rating but not an undermanned year group, then your application will be processed through the monthly Rack and Stack process. Applications submitted in one month are processed in Rack and Stack the following month.
- For Nuclear ratings, all applications are reviewed by enlisted community managers on an ongoing basis throughout the processing month.
- If required data is missing (evaluations, Physical Fitness Assessment (PFA) data, security clearance etc.) the application will be denied with a note to your career counselor regarding what needs to be fixed. It is critical the Command Career Counselor reviews these notes to ensure Sailors are not disadvantaged in their opportunities for retention.
- Upon completion of the monthly process, Career Waypoints results will be available to command users via the Monthly report section of the Career Waypoint system.
- For additional guidance, see MILPERSMAN 1160-140, NAVADMIN 231/17, and your Career Counselor
  Or call My Navy Call Center: (833) 330-MNCC or (901) 874-MNCC; or askmncc@navy.mil

Targeted Reentry Program (TRP)

NAVADMIN 047/18 empowers COs with the ability to identify and recommend SELRES on active duty/Definite Recall (ACDU) and Full Time Support (FTS) enlisted personnel, who are the best and brightest, the option for expedited reentry to Active Duty in the Navy.

- *Golden Ticket* – Sailors are guaranteed an expedited return to ACDU within one year from separation from ACDU. Sailors who do not use their Golden Ticket within one year are automatically convert to a Silver Ticket for one additional year. Sailors must remain fully qualified.
- *Silver Ticket* – Sailors are afforded an expedited return to ACDU within two years from separation date. This opportunity is subject to Needs of the Navy (NOTN) and provided the Sailor remains fully qualified.

Upon completion of the monthly process, Career Waypoints results will be available to command users via the Monthly report section of the Career Waypoints system.

For additional guidance, see MILPERSMAN 1001-260, NAVADMIN 231/17, and your Career Counselor
Or call My Navy Call Center: (833) 330-MNCC or (901) 874-MNCC; or askmncc@navy.mil

AC/FTS TRANSFER:

15 Months	12 Months	9 Months	6 Months	Orders Received
Career Waypoint	Career Waypoint	Career Waypoint	Accept Orders	Screening
Exception Family Member	Exception Family Member	Medical/Dental	Reverse Sponsor	Obligate
MNA	MNA	MNA	Relocation (FFSC)	Bonus
Mil to Mil	Eval	SRB	SRB	
Family Care Plan				
Continuous Overseas Tours (COT)				
Overseas Tour Extension Incentive Program (OTEIP)				

SELRES TRANSFER:

12 Months	9 Months	6 Months	3 Months	Orders Received
MNA	MNA	MNA	MNA	Sign Eval
(verify account access)	*(extend in current field)*	*(apply for billets)*	*(apply for billets)*	
Family Care Plan		Start Eval		
Mil to Mil		Reverse Sponsor		
		Incentives/EOS opportunities		

For additional assistance in transfer and relocation, go to the Military OneSource website: https://www.militaryonesource.mil/ and visit your Fleet and Family Support Center on base.

SEPARATING/RETIRE*:

18 -12 months	6 months	90 days	30 days
TAP*	MED/DEN	Copy of Records	Copy of Records
Complete DD 2648	Relocation	Official Record CD	PSD
Transition Planning	Relocation Services (FFSC)	Arrange Ceremony	MED/DEN
Annual Statement of Service History (ASOSH)	Reserve Affiliation	Request Leave / PTDY	DD 214*
Reserve Only	VA/DVA		

Upon demobilization, SELRES will need Transition Assistance Program (TAP) and DD-214; DD-214 is not required for Reserve Retirements.

PHYSICAL FITNESS:

Participate in a year-round physical fitness program to meet Navy fitness and BCA standards. Review and verify accuracy of PFA data in PRIMS within 60 days of the PFA cycle. (PRIMS is accessible through your BUPERS Online Account)

Height _____ Weight _____ If Required (AC _____ BCA _____)

Last 2 PRT Cycles: Forearm Plank _____ / _____ Push-ups _____ / _____ Run/Swim/Cardio _____ / _____

Overall Score _____ / _____

List date (if) any PRT/BCA failure(s) over the last 5 years _____ / _____

List if any Medical Waiver(s) _____ / _____

For more information on Navy Fitness, visit: https://www.public.navy.mil/bupers-npc/support/21st_Century_Sailor/physical/Pages/default2.aspx

PROFESSIONAL MILITARY EDUCATION (E1/E2/E3)

(Resident and non-resident coursework designed to enhance a Sailor's general military professional knowledge and abilities)

EDUCATION: (Prior to considering any pursuit of off duty education or program enrollment call the Navy College Virtual Education Center (NCVEC) 877-838-1659 or Visit your overseas Navy College Office.)

Education Plan Completed (Navy College Office/NCVEC)

Current Education Level

Degree Goal

** Various degree options are available in the Advanced Education section. **

Goal: Date: AA/AS   BA/BS   Master
(Credits to earn a degree - AA/AS: 60 SH/90 QH, BA/BS: 120 SH/180, QH, Master /Doctorate: Variable based on program)

Number of current credits   American Council on Education (ACE) recommended credits

Joint Service Transcripts (JST)

HS Transcripts   College Transcripts

Date Degree Obtained: AA/AS   BA/BS   Master   Doctorate

For entry into JST, have your College/University send official transcripts to:
Naval Education and Training Command N644
JST Operation Center
6490 Saufley Field Road
Pensacola, FL 32509
Email: JST@DODED.mil

VOLUNTARY EDUCATION: Links to study guides, exam preparations, and practice tests are located on the DANTES website https://www.dantes.doded.mil/

Academic skills   NCPACE   CLEP   DSST

TA   MGIB   MGIB-SR   Post 9/11 GIB

E1/E2/E3 REQUIRED NAVY PME:

Course Title	Course Location	CIN/CSE ID	Course Length	Date Completed
Foundational Leader Development Course [5]	Water front/ Flightline/ Various [4]	NELD-03	2.5 days	
Navy Military Training (Life Skills) (Pre-A School Delivery only) [6]	Command Delivered	A-500-1000	2 days	
Professional Military Knowledge Eligibility Exam (PMK-EE) for E4	Navy e-Learning	NETCPDC-PMK-EE-E4-1.0		
Ethics Training	Command Delivered			
Required General Military Training Topics For FY 2022 (Delivery determined by command discretion) [1]				
Sexual Assault Prevention and Response Awareness (SAPR)[3]	Command Delivered	CPPD-GMT-SAPRA-1.0		
Cyber Awareness Challenge	MNP	DOD-IAA-V16.0		
Counterintelligence Awareness and Reporting	Command Delivered/ MNP	DOD-CIAR-1.0		
Records Management	Command Delivered/MNP	DOR-RM-010-1.2		
Privacy Act	Command Delivered			
Suicide Prevention[3]	Command Delivered	CPPD-GMT-SAP-1.0		
Antiterrorism Level I [2]	Command Delivered/ MNP	CENSECFOR-AT-010-1.0		

1 - Verify GMT topics on the My Navy Portal (MNP) GMT webpage
2 - Personnel with less than 3 years of time-in-service must also complete Antiterrorism Level 1 training. For personnel with greater than 3 years of time-in-service, Antiterrorism Level 1 periodicity is now a triennial requirement and will be mandated for all hands in FY-22.
3 - The recommended method of delivery for SAPR and Suicide Prevention annual training is via face-to-face, small group facilitated discussions.
4 - See MNP Enlisted Leadership Development page: https://www.mnp.navy.mil/group/training-education-qualifications/enlisted-leader-development.
5 - Available for paygrades E3 and E4
6 - Required for delivery in "A" School for all ratings

E1/E2/E3 REQUIRED COMMUNITY PME:

Course Title	Course Location	CIN/CSE ID	Course Length	Date Completed
Naval Security Group Training Series, Mod-11, SCI Security And Emergency Destruction	NSA Net	NSGTP 683-11-00-01		
Naval Security Group Training Series, Mod-1, Naval Cryptology In National Security	NSA Net	NSGTP 683-01-00-97		
USSID CR1400	NSA Net			
USSID CR1501	NSA Net			
USSID SG5000	NSA Net			
USSID SP0018	NSA Net			
NEETS MOD 13 Introduction to numbering systems and logic	MNP	CTN Training Page		
CTN Job specific JQR/ PQS	Command Delivered			

E1/E2/E3 RECOMMENDED NAVY PME:

Course Title	Course Location	CIN/CSE ID	Course Length	Date Completed
Basic Military Requirements (NAVEDTRA 14325) (EDITION 1/1/2002)		NAVEDTRA 14325		
Professional Military Knowledge Eligibility Exam (PMK-EE) Study Material	Navy e-Learning	NETCPDC-PMK-EE-SM-1.0		
Military Requirements for Petty Officer Third and Second Class	Navy e-Learning	NRTC-NAVEDTRA-14504-MRFPO-TASC-1.0		
Introductory Enlisted Professional Military Education (IEPME)	Navy e-Learning	Military DON/ PME	18 hrs	
Block 1 Introductory EPME - Introduction	Navy e-Learning	NWC-IEPME-INTRO-B1	-	
Block 2 Introductory EPME - History and Traditions	Navy e-Learning	NWC-IEPME-INTRO-B2	3 hrs	
Block 3 Introductory EPME - Enlisted Professionalism	Navy e-Learning	NWC-IEPME-INTRO-B3	3 hrs	
Block 4 Introductory EPME - Policy and the Navy	Navy e-Learning	NWC-IEPME-INTRO-B4	3 hrs	
Block 5 Introductory EPME - Planning for Operations	Navy e-Learning	NWC-IEPME-INTRO-B5	3 hrs	
Block 6 Introductory EPME - Regional and Cultural Awareness	Navy e-Learning	NWC-IEPME-INTRO-B6	3 hrs	
Block 7 Introductory EPME - Technology in the Maritime Domain	Navy e-Learning	NWC-IEPME-INTRO-B7	3 hrs	
Block 8 Introductory EPME - Conclusion	Navy e-Learning	NWC-IEPME-INTRO-B82	-	
Cultural Awareness	Navy e-Learning	Foreign Language and Culture	45 hrs	
Navy Reserve Fundamentals for Active Duty Course	Navy e-Learning	NAVRESFOR-NRF-3.0	10 hrs	
Nutrition	Navy e-Learning	NMHCI2107V2.1	1 hour	
Personal Financial Management	Navy e-Learning	CPD-PFM-1.0	8 hrs	
PREVENT	Command Delivered	S-501-0150	24 hrs	
Recommended General Military Training Topics For FY 2022 (Delivery determined by command discretion) [1]				
Alcohol, Drug, and Tobacco Awareness	Command Delivered	CPPD-GMT-ADTA-1.0		
Combating Trafficking of Persons General Awareness	Command Delivered/ MNP	DOD-CTIP-3.0		
Domestic Violence Prevention and Reporting	Command Delivered	CPPD-GMT-DV-1.1		
Electromagnetic Maneuver Warfare	Command Delivered/ MNP	NAVIFOR-FEWC-EMW-01.01		
Energy Policy	Command Delivered	OPNAV-GMTE-1.0		
Equal Opportunity, Harassment, and Resolution Options	Command Delivered	CPPD-GMT-EOSH-1.0		
Hazing Policy and Prevention	Command Delivered	CPPD-GMT-HPP-1.0		
Operational Risk Management (ORM)	Command Delivered	CPPD-GMT-ORMTC-1.0		
Operations Security	Command Delivered/ MNP	NOST-USOPSEC-3.0		
Personal Financial Management	Command Delivered	CPPD-GMT-PFM-1.0		
Sexual Health and Responsibility	Command Delivered	CPPD-GMT-SHR-1.0		
Stress Management	Command Delivered	CPPD-GMT-SM-1.0		
Traumatic Brain Injury	Command Delivered			
Privacy Act	Command Delivered	DON-PRIV-2.0		
Antiterrorism Level I [2]	Command Delivered/ MNP	CENSECFOR-AT-010-1.0		
Tactical Combat Casualty Care All Service Member/Tier 1	Command Delivered	B-300-2010		
Financial Management [3]	Command Delivered			

1 - Verify GMT topics on MyNavy Portal GMT webpage

2 - Personnel with less than 3 years of time-in-service must also complete Antiterrorism Level 1 training. For personnel with greater than 3 years of time-in-service, Antiterrorism Level 1 periodicity is now a triennial requirement and will be mandated for all hands in FY-22.

3 - Does not have a mandatory periodicity but is required at career touch points per CNO WASHINGTON DC/191539ZJUL16.

Courses with Recommended Reserve Points:

Commander Navy Reserve Forces (CNRF) N7 determines the number of reserve points awarded for completion of a course taken on Navy e-Learning. This listing should only be used as a guide and is subject to change by direction of CNFR N7.

Navy e-Learning has no control over how many, if any, reserve points are eventually awarded for the completion of a course. All questions concerning the award of reserve points should be directed to CNFR N7.

E1/E2/E3 RECOMMENDED RESERVE PME:

Course Title	Course Location	CIN/CSE ID	Course Length	Date Completed
Navy Reserve Fundamentals Course (E1-E9)	Navy e-Learning	NAVRESFOR-NRF-3.0		
Navy Reserve Order Writing System/Reserve Defense Travel System (E1-E9)	NRPDC New Orleans	R-510-5514	5 days	
Reserve Medical Administration (E1-E7)	NRPDC New Orleans	R-500-0007	5 days	
Reserve Pay and Personnel Management (E1-E9)	NRPDC New Orleans	R-500-0020	5 days	
Non-Prior Service Accession Program	Navy e-Learning	CNRFC-NPSAP-2 /DoN 0	23 hrs	
Guidance for Mobilization	Navy e-Learning	CNRFC-GMB-1.1 /DoN	4 hrs	
Military Sealift Command 101	Navy e-Learning	CNRFC-MSC101 /DoN 1.1	24 hrs	

For more details or to check for updates please check CANTRAC or the NRPDC Sharepoint page (CAC required): https://private.navyreserve.navy.mil/NRPDC/Pages/NRH_Default.aspx

E1/E2/E3 RECOMMENDED COMMUNITY PME:

Course Title	Course Location	CIN/CSE ID	Course Length	Date Completed
GIAC Security Essentials Certification (GSEC)	Commercial Trng			
CompTIA Network+	Commercial Trng			
CompTIA Security+	Commercial Trng			
CompTIA A+	Commercial Trng			
New Accession Professional Development (NAPD) Reserve only	Multiple locations		5 days	

NAVY PROFESSIONAL READING PROGRAM (PRP)

The purpose of the Chief of Naval Operations Professional Reading Program (CNO PRP), maintained by CNO PRP program managers at the U.S. Naval War College, is to facilitate the professional and personal development of all Sailors. For additional information on the CNO PRP visit https://www.navy.mil/CNO-Professional-Reading-Program/

READINESS

Visit https://www.navy.mil/CNO-Professional-Reading-Program/Readiness/ for more information.		
Foundational	**Advanced**	**Capstone**
Ghost Fleet – *Singer*	Matterhorn - *Marlantes*	Leaders Eat Last - *Sinek*
Guide to Maritime Strategy – *Holmes*	Red Star Over the Pacific - *Holmes & Yoshihara*	Mindset: Psych of Success - *Dweck*
Neptune's Inferno - *Hornfischer*	Seapower: Guide for 21st Century - *Till*	The Infinite Game - *Sinek*
Six Frigates – *Toll*	The Leader's Bookshelf - *Stavridis*	What is it Like to go to War - *Marlantes*

CAPABILITIES

Visit https://www.navy.mil/CNO-Professional-Reading-Program/Capabilities/ for more information.		
Foundational	**Advanced**	**Capstone**
AI Basics - *Taulli*	Fifth Domain: Cyber - *Clarke*	Deep Thinking: AI - *Kasparov*
Army of None - *Scharre*	Human Compatible - *Russell*	Four Global Forces - *Dobbs*
Burn-In - *Singer*	New Rules of War - *McFate*	Genius Weapons - *DelMonte*
The Future of War - *Freedman*	The Perfect Weapon - *Sanger*	Inevitable - *Kelly*
The Next 100 Years - *Friedman*		

CAPACITY

Visit https://www.navy.mil/CNO-Professional-Reading-Program/Capacity/ for more information.		
Foundational	**Advanced**	**Capstone**
Fearless-SEAL Team Six - *Blehm*	American Naval Thinking - *Haynes*	End of Grand Strategy - *Dombrowski*
One Nation Under Drones - *Jackson*	Fleet Tactics - *Hughes*	Our Robots Our Selves - *Mindell*
The Fleet at Flood Tide - *Hornfischer*	Just and Un-Just Wars - *Walzer*	Second Most Powerful Man - *O'Brien*
Tin Can Sailors - *Hornfischer*	Seapower - *Stavridis*	The Future of Violence - *Wittes*

SAILORS

Visit https://www.navy.mil/CNO-Professional-Reading-Program/Sailors/ for more information.		
Foundational	**Advanced**	**Capstone**
Dichotomy of Leadership - *Willink*	A Tactical Ethic - *Couch*	Fortune Favors Boldness - *Costello*
Ego is the Enemy - *Holiday*	Character Gap - *Miller*	No Pity - *Shapiro*
How to be an Anti-Racist - *Kendi*	Fed Up - *Hartley*	Road to Character - *Brooks*
Tiny Habits - *Fogg*	Military Ethics - *Lucas*	The Honest Truth about Dishonesty - *Aire*
We Can't Talk About That at Work - *Winters*	Sexual Minorities and Politics - *Pierceson*	The New Jim Crow - *Alexander*
	Start with Why - *Sinek*	

MCPON's Suggested Reading

Visit https://www.navy.mil/CNO-Professional-Reading-Program/MCPON-Suggested-Reading/ for more information.		
Master Chief Petty Officer of the Navy (MCPON) Russell Smith identified these 21 additional books as suggested reading.		
A Call to Conscience - *Carson, Shepard, Young*	Happiness Advantage - *Achor*	Starship Troopers - *Heinlein*
Blink: Power of Thinking - *Gladwell*	Jonathan L. Seagull - *Bach*	Team of Teams - *McChrystal, Collins, Silverman, Fussell*
Brave New World - *Huxley*	Only Women in the Room - *Benedict*	The Captain Class - *Walker*
Cannonball! - *Yates*	Overcome - *Redman*	The Good Shepherd - *Forester*
Class 11 - *Waters*	Perform Under Pressure - *Evans*	The Old Man's Trail - *Campbell*
Descent Into Darkness - *Raymer*	Run Silent, Run Deep - *Beach*	Tragedy at Honda Point - *Lockwood*
Duty: A Memoir - *Gates*	Shoot the Women First - *MacDonald*	We Die Alone - *Howarth*

Nearly 200 years ago, the Navy ordered its ships be outfitted with a reading list of 37 books in order to help train and educate Sailors. The Navy's leaders knew then what is still the case today: to outthink our competitors we must study and apply lessons we've learned from our past. Furthermore, it is critically important for our Navy to be a learning organization. And one of the very best ways to do that is to foster an environment where every Sailor deepens their level of understanding and learning.

That is why we launched an updated Chief of Naval Operations Professional Reading Program (CNO-PRP) reading list, with a motto of "Read Well to Lead Well."

E1/E2/E3 RECOMMENDED COMMUNITY READING

Title	Completed
The Deceivers *by John Masters*	
Miracle at Midway *by Gordon Prange, Donald Goldstein, and Katherine Dillon*	
The Puzzle Palace: A Report on America's Most Secret Agency *by James Bamford*	
Body of Secrets *by James Bamford*	
The Hunt For Red October *by Tom Clancy*	
A Matter of Accountability: The True Story of the Pueblo Affair *by Trevor Armbrister*	
Assault on the Liberty *by James Ennes*	
For the President's Eyes Only: Secret Intelligence and the American Presidency from Washington to Bush *by Christopher M. Andrew*	
MacArthur's ULTRA: codebreaking and the war against Japan *by Edward J. Drea*	
Double-edged secrets: US naval intelligence operations in the Pacific during World War II *by W. J. Holmes*	
Seizing the enigma: the race to break the German U-boat codes *by David Kahn*	
And I was there: Pearl Harbor and Midway--breaking the secrets *by Edwin T. Layton*	
The Hut Six story: breaking the Enigma code *by Gordon Welchman*	
Computer cryptology: beyond decoder rings *by Karl Andreassen*	
Behind the battle: intelligence in the war with Germany *by Ralph Bennett*	
Hitler's Japanese confidant: General Oshima Hiroshima and MAGIC intelligence *by Carl Boyd*	
Codebreakers: the inside story of Bletchley Park *by F. H. Hinsley*	
Blind Man's Bluff: The Untold Story of American Submarine Espionage *by Sherry Sontag and Christopher Drew*	
Cyberpunk: Outlaws and Hackers on the Computer Frontier *by Katie Hafner, John Markoff - Non-Fiction*	
The Cuckoo's Nest: Tracking a Spy Through the Maze of Computer Espionage *by Clifford Stoll*	
Crypto *by Steven Levy*	
Hackers: Heroes of the Computer Revolution *by Steven Levy*	
UNTANGLING THE WEB *NSANET*	

Note: Prior to considering any pursuit of off duty education or program enrollment contact the Navy College Virtual Education Center (NCVEC) or visit your Overseas Navy College Office.

You must complete the Tuition Assistance Training before your first course will be approved.

Complete the online courses at the Navy College Website: http://www.navycollege.navy.mil/

How do I get started?

You already have. All your training up to this point is part of your Cryptologic Technician - Networks Roadmap. Now that you have made the first steps you will need to sit down and formulate a plan. This plan will work best if you start out discussing your options with your Leading Chief Petty Officer, Leading Petty Officer, Mentor, or Career Counselor. They will help you understand all of the basics. Then your next step is to contact the Navy College Virtual Education Center or visit your Overseas Navy College Office. Then your counselors will be able to help you formalize your plan and make sure that it makes sense for both you and the Navy. To aid you in your conversation with these professionals, here are a few questions that you may want to ask.

What credits do you have? What non-college courses have you taken? Where do you want to go? What field of study, or what kind of degree? What program will help me get there: Traditional or Online? What are my next steps: Transfer credits, take exams, have experience evaluated, or sign up for new courses?

RECOMMENDED OCCUPATIONAL-RELATED ASSOCIATE'S DEGREE FOR CTN

Recommended Associates' degrees for the Seaman
Computer Engineering, General
Computer Software Technology/Technician
Computer and Information Systems Security/Auditing/Information Assurance
Computer Science
Computer and Information Sciences, General
Computer Systems Networking and Telecommunications
Computer Programming/Programmer, General
Computer/Computer Systems Technology/Technician
Computer Systems Analysis/Analyst
Information Technology

RECOMMENDED OCCUPATIONAL-RELATED BACCALAUREATE/MASTERS DEGREE FOR CTN

Recommended Bachelors/Masters degrees for the Seaman
Information Technology Project Management
Computer and Information Sciences, General
Computer Science
Computer Engineering, General
Computer Software Engineering
Cyber/Computer Forensics and Counterterrorism
Computer Systems Networking and Telecommunications
Computer and Information Systems Security/Auditing/Information Assurance
Information Technology
Network and System Administration/Administrator
Cyber/Electronic Operations and Warfare
Critical Infrastructure Protection

The Navy College Program & Web Page:

The Navy College Program (NCP) provides opportunities to Sailors to earn college degrees by providing academic credit for Navy training, work experience, and off-duty education. The NCP mission is to enable Sailors to obtain a college degree while on active duty. In support of the four R's - Recruiting, Readiness, Retention, and Respect - the NCP signifies Navy's commitment to education by improving enlistment appeal; demonstrating Navy service and achieving a college degree are compatible; helping Sailors apply themselves to new situations and challenges and better preparing them for advancement; building up Sailors' self-image; and producing higher quality Sailors.

- More information is available online at: https://www.navycollege.navy.mil

Tuition Assistance (TA):

NAVADMIN 114/19 limit changes as of 1 October 2019: TA provides funds for eligible active-duty personnel to attend approved educational institutions on an off-duty basis to earn a high school diploma, vocational/technical certificate, or college degree. TA pays for tuition. TA will pay for the following amount per career: 120 semester hours, or 180-quarter hours or 1800 clock hours or a combination of semester, quarter and clock hours. TA will pay the following amounts per fiscal year: 12 semester hours, not to exceed $250/credit for semester hours or 18-quarter hours not-to-exceed $166.67/credit for quarter hours or, 180 clock hours not-to-exceed $16.67/clock hours or a combination of semester, quarter and clock hours.

- More information is available online at: https://www.navycollege.navy.mil

Joint Service Transcripts (JST)

JSTs are official military transcripts which are used by colleges to validate your actual credited training. Every Sailor has a transcript already and access to it is free.

- More information is available online at: https://jst.doded.mil/

The American Council on Education (ACE)

ACE has reviewed every course listed in the OCCUPATIONAL Roadmap and determined what type of collegiate level credit is recommended. The ACE identifier, listed with each course, is a source to validate the information and to check for changes as they occur.

- Updates can be found at http://www.acenet.edu/news-room/Pages/Military-Guide-Online.aspx.

Vocational Certificates

Vocational Certificates are available from most community colleges. Most of your military training can be counted toward their degree programs, but they will still require residency credits and approximately 40-75 credit hours. These certificates can be as valuable as the apprenticeship program in the civilian work force.

College credits by Testing CLEP, DSST

Testing can replace the requirement to attend most of the college courses listed in the Occupational Roadmap. Base Education Centers offer CLEP and DSST exams for active duty military at no cost. They also offer a comprehensive list of "credit-by-exam" tests. Additionally, many of the tests have study guides available. These tests are available at the base education center or through the base library system. For specific testing locations visit the DANTES website.

- Navy College Program: https://www.navycollege.navy.mil/information-for-sailors/pre-college-testing-and-college-credit.htm
- DANTES: http://www.dantes.doded.mil/examinations/earn-college-credit/earn-college-credit.html

College Entrance Exams Testing ACT, SAT

The ACT and SAT are both standardized tests that help colleges evaluate candidates. Many colleges require that students submit test results as part of the admission application process. Since Sailors are considered transfer students, these tests are not generally required for admission. However, some Sailors must take the tests to enter specific military programs.

- Navy College Program (ACT SAT): http://www.navycollege.navy.mil/information-for-sailors/college-entrance-exams.htm
- DANTES (ACT SAT): http://www.dantes.doded.mil/examinations/college-admissions/act.html

SAMPLE DEGREE PLAN

Florida Community College

NCPDLP ROADMAP

A.S. INDUSTRIAL MANAGEMENT TECHNOLOGY

RATING:

Other Degree Requirements: *Remediation / SLS / Pre-reqs if Needed*
Residency: 25% coursework must be completed at FCCJ (in-class or DL).

~ School Degree Information ~

COURSE NUMBER/TITLE	CREDITS NEEDED	SERVICE SCHOOL	MOS	CLEP	DSST	EXCELSIOR	DL	SOC CRS. Cat.#
~GENERAL EDUCATION								
ENC 1101 - English Composition I	3		-	ENC1101	-	ENC1101	Y	EN024A
Social Science	3		-	Y	Y	Y	Y	TBD
Mathematics	3		-	Y	Y	-	Y	TBD
Humanities	3		-	Y	Y	-	Y	TBD
Natural Science	3		-	Y	Y	Y	Y	TBD
~PROFESSIONAL COURSES								
MAN 2021 - Principles of Management	3	E7-E9		MAN2021			Y	MG101A
BCN2732: OSHA Safety	3						N	ET069A
GEB 1011 - Introduction to Business	3				GEB1011		Y	BU001A
OST1581:Professional Development in the Work Environment	3						Y	
MAN2125:Supervision & Performance Improvement	3						Y	
ENC2210: Technical Report Writing	3						Y	EN032A
CGS 1100 - Microcomputer Applications	3	E6-E9					Y	OF033A
~PROFESSIONAL ELECTIVES - minimum 24 hours								
	E3	E4	E5	E6	E7	E8	E9	
ACE Recommended from MOS / Rate:								
Military Credits	7	13	13	17	16	16	16	
Credit from Service School:								
Recruit Training	2	2	2	2	2	2	2	
A-School (if attended)								
C-Schools (if attended)	Credit based on individual evaluation							
Total Elective Hours—————————	9	15	15	19	18	18	18	
Total Credits Awarded *	9	15	15	22	24	24	24	
TOTAL CREDITS NEEDED (60 s.h.)	51	45	45	38	36	36	36	

* Disclaimer: Please be aware that this is a sample and a Sailor's actual credit awarded may vary depending on the ACE recommendation in effect at the time of their training. This is an unofficial preview of how credit from prior learning and military experience may be applied toward this degree option. It is subject to change upon official evaluation by Florida Community College, Military Education Institute (800) 700-2795, military@fccj.edu.

REFERENCES

Navy Enlisted Learning and Development Programs:

- Learning and Development Roadmap for Enlisted Sailors, OPNAVINST 1500.77(series)
- Navy Enlisted Retention and Career Development Program, OPNAVINST 1040.11(series)
- Career Counselor Handbook, NAVPERS 15878L
- Command Sponsor and Indoctrination Programs OPNAVINST 1740.3(series) (Sponsor assigned within 10 days of orders received / Indoctrination completed as soon as possible and practicable but NLT 90 days)
- Command Sponsorship of Dependents at Overseas Duty Stations MILPERSMAN 1300-150 to 1300-210
- Navy Enlisted Warfare Qualification Programs OPNAVINST 1414.9 (series)
- Master Training Specialists (MTS) Program NETCINST 1500.2(series)
- Command Master Chief Program OPNAVINST 1306.2 (series)

Reenlistments and Extensions:

- Agreement of Enlisted Naval Reservist, and Fleet Reservists Inductees to Remain on Active Duty MILPERSMAN 1160-060
- Extension of Enlistments MILPERSMAN 1160-040
- Overseas Tour Extension Incentives Program (OTEIP) MILPERSMAN 1306-300
- Consecutive Overseas Tours (COT) Leave Travel Entitlement Policy MILPERSMAN 1050-410
- Career WayPoints - Reenlistment MILPERSMAN 1160-140
- Reenlistment Ceremony MILPERSMAN 1160-020
- Leave of Military Personnel MILPERSMAN 1050-040
- Required Counseling Upon Enlistment and Reenlistment MILPERSMAN 1160-031
- Selective Reenlistment Bonus (Use Latest SRB NAVADMIN)
- Selective Training and Reenlistment (STAR) Program MILPERSMAN 1160-100
- Assignment to School as a Reenlistment Incentive MILPERSMAN 1306-1006
- Reserve Enlisted Incentives RESPERSMAN 1100-020 and current ALNAVRESFOR Message
- Reenlistments and Extensions for Sailors in a Drilling Status RESPERSMAN 1160-010
- Satisfactory Participation in the Navy Reserve RESPERSMAN 1001-010

Fleet Reserve and Retirements:

- Casualties and Survivor Benefits (SBP) MILPERSMAN 1770-010 to 1770-280 OPNAVINST 1750.5(Series)
- Disability Retirement MILPERSMAN 1850-010 to 1850-040
- Fleet Reserve and Retirement MILPERSMAN 1800-010 to 1800-070
- Privately Owned Vehicle (POV) Shipment Entitlement Policy and Household Goods (HHG) Shipment and Storage Entitlement Policy MILPERSMAN 4050-010 to 4050-020
- Permissive Temporary Duty (PTDY) Authorization for Job/House Hunting MILPERSMAN 1320-220
- Transition Assistance Program (TAP) OPNAVINST 1900.2(series) (Initiate a DD-2648E-1 NLT 90 Days Prior to Separation and attend workshop 12 months prior to separation/Fleet Reserve/Retirement date)

Enlisted Administrative Separations:

- Separation by Reason of Alcohol Rehabilitation Failure MILPERSMAN 1910-152
- Separation by Reason of Misconduct -Drug Abuse MILPERSMAN 1910-146
- Separation by Reason of Convenience of the Government -Early release to further education MILPERSMAN 1910-108
- Administrative Separation (ADSEP) Policy and General Information MILPERSMAN 1910-010 to 1910-812
- Fraudulent Enlistment MILPERSMAN 1910-134
- High Year Tenure (HYT) MILPERSMAN 1160-120
- Misconduct (various reasons) MILPERSMAN 1910-138/140/142
- Department of the Navy (DON) Policy on Parenthood and Pregnancy SECNAVINST 1000.10(series) & MILPERSMAN 1910-124
- Separation by Reason of Convenience of the Government -Personality Disorder MILPERSMAN 1910-122
- Separation by Reason of Physical Fitness Assessment (PA) Failure MILPERSMAN 1910-170
- Separation by Reason of Misconduct - Commission of a Serious Offense MILPERSMAN 1910-142
- Separation by Reason of Unsatisfactory Performance MILPERSMAN 1910-156

Advancement & Service Schools:

- Advancement Manual for Enlisted Personnel of the U.S. Navy and U.S. Navy Reserve BUPERSINST 1430.16(series)
- Accelerated Advancement of Recruit Training Class "A" School Graduates, and Ceremonial Guard MILPERSMAN 1430-010
- Enlisted to Officer Commissioning Program Application & Administration Manual OPNAVINST 1420.1(series)
- Service Schools MILPERSMAN 1306-600/602/604/608
- Class "A" School & Rating Entry Requirements MILPERSMAN 1306-618
- Retesting with Armed Forces Classification Test (AFCT) version of the Armed Services Vocational Aptitude Battery (ASVAB) MILPERSMAN 1236-010
- Professional Apprenticeship Tracks Program (PACT) NAVADMIN 318/07
- Prior Service Reenlistment Eligibility – Reserve (PRISE-R) MILPERSMAN 1133-061

Education Advancement & Service Schools:

- Joint Chiefs Professional Military Education (PME) Manual 1805.01
- Voluntary Education (VOLED) for Navy Sailors OPNAVINST 1560.9(series)
- Navy Voluntary Education Program NETCINST 1560.3(series)
- Navy Credentialing Programs OPNAVINST 1540.56
- Administration of the United Services Military Apprenticeship Programs (USMAP) OPNAVINST 1560.10(series)

Diversity, Equity and Inclusion, and Anti-Extremism:

- Diversity, Equity and Inclusion: https://diversity.defense.gov
- DOD Diversity and inclusion Management Program DODI 1020.05(series)

Other Quick References:

- Awards Manual (SECNAVINST 1650.1(Series)
- Change in Rating MILPERSMAN 1440-010 to 1440-040
- Department of the Navy Correspondence Manual (SECNAV M-5216.5
- Navy Alcohol and Drug Abuse Prevention and Control OPNAVINST 5350.4(series)
- Exchange of Duty (SWAPS) MILPERSMAN 1306-700
- First-Term Personnel Assignment Policy MILPERSMAN 1306-126
- Individual Augmentation (IA) Policy and Procedures OPNAVINST 1001.24(series)
- Military Couple and Single Parent Assignment Policy MILPERSMAN 1300-1000
- Military Pay MILPERSMAN 7220-010 to 7220-410
- Navy Performance Evaluation System BUPERSINST 1610.10 (Series)
- Overseas Extensions MILPERSMAN 1300-310
- Physical Readiness Program OPNAVINST 6110.1(series) / MILPERSMAN 6100-6199
- Reassignment for Humanitarian Reasons (HUMS) MILPERSMAN 1300-500
- Standardized Policy and Procedures for the Active Duty for Operational Support (ADOS) Programs OPNAVINST 1001.20 (series)
- Operational Risk Management OPNAVINST 3500.39C
- Personnel Qualification Standards (PQS) Catalog NAVEDTRA 43100-6M
- Manual of Navy Enlisted Manpower and Personnel Classifications and Occupational Standards NAVPERS 18068F Volume 1 & 2